

traordinary collection; it is probably the same as Kiener's *V. lyriformis*, but it is not the same as Broderip's, which is identical with Swainson's *Mitra lyriformis*. Its papillary apex closely resembles that of *V. fulminata*.

**VOLUTA GUILDINGII.** *Vol. testâ oblongâ, crassâ, fulvescente, lineolis saturatoribus aliisque albis pictâ; spirâ acuminatâ, apice obtuso; anfractibus 5 ad 6, subventricosis, longitudinaliter costatis, interstitiis costarum transversim striatis, ultimo magno, lævigatiusculo; aperturâ mediocri, labio externo extus incrassato, albicante, intus dente parvo instructo; columellâ plicis quinque ad sex parvis, anticis duabus validioribus.*

Shell oblong, thick, fulvous, marked with little white lines and others of a darker colour; spire acuminate, with an obtuse apex; volutions five to six, rather ventricose, longitudinally ribbed, interstices of the ribs with transverse striæ, the last volution large, rather smooth; aperture middle-sized, outer lip externally thickened, whitish, furnished with a small tooth internally; columella with five or six small folds, of which the two anterior are more prominent.

This is the smallest known species of *Volute*; it was discovered at St. Vincent's by the late Rev. Lansdown Guilding. In Mr. Cumming's and Mr. Metcalfe's collections.

**VOLUTA CYLLENIFORMIS.** *Vol. testâ parvâ, ovatâ, crassâ, læviusculâ, albicante, maculis parvis flavicantibus sparsim ornata; spirâ subconicâ, anfractibus sex, posticè coarctatis, ad suturam granosis, anticè longitudinaliter costatis, ultimo magno, anticè transversim striato; canali parvo, reflexo; aperturâ oblongâ, labio externo extus incrassato, margine interno intus dente parvo instructo; labio columellari anticè ruguloso, dentibus tribus parvulis munito.*

Shell small, ovate, thick, rather smooth, whitish, sprinkled with small yellowish specks; spire somewhat conical, with six volutions, which are contracted posteriorly, granose at the sutures and longitudinally ribbed anteriorly; the last volution is large and anteriorly transversely striated; canal small, slightly reflected; aperture oblong, outer lip externally thickened, its internal edge furnished with a small tooth; columellar lip rugulose anteriorly, furnished with three small teeth.

The only specimen I have seen of this curious little shell is in the collection of W. Metcalfe, Esq. In general appearance it nearly resembles a *Cyllene*.

#### GEOLOGICAL SOCIETY.

Dec. 4, 1844.—A paper was read, entitled, "Remarks on the Geology of British Guiana." By the Chevalier Robert H. Schomburgk.

The geology of the district of British Guiana is chiefly confined to primitive rocks. At the mouth of the Orinoco is an extensive delta consisting of blue clay, which, when pierced, gives a supply of water, and Artesian wells have been sunk here in many places with success. Below the clay appear the remains of an ancient forest. The allu-

vial flat is terminated by sand-hills, beyond which occurs granite intersected by numerous greenstone dykes, and then commence the savannahs, which are traversed by large beds of conglomerate often containing iron ore, and pierced with lofty porphyritic hills. The savannahs are supposed to be the bed of an ancient lake. A region in which much jasper occurs next succeeds, and then a remarkable range of granitic mountains; and the author directed especial attention to the insulated rocks of grotesque form abounding in the district. He also remarked on the probability of gold being found in the river-courses, and on the appearance of the well-known diamond-matrix of Brazil.

A letter was next read from Mr. Trevelyan, remarking on the occurrence of polished and scratched surfaces in the neighbourhood of Conway, on the ascent of Moel Siabod, from Capel Carig, on Snowdon, and in other localities in North Wales.

Dec. 18.—A paper was read "On the Pipes or Sandgalls in the Chalk and Chalk-rubble of Norfolk." By Joshua Trimmer, Esq.

The observations recorded in the present paper were made in chalk pits near Norwich, and the surface of the chalk was observed to be furrowed by irregular cavities, or deep cylindrical conical pipes, entering the chalk from the channeled surface. The contents of the furrows appeared to be fine sand mixed with a light-coloured amber or yellow ochre, the former often filling up the cavities both here and elsewhere. The author considers, that although chemical agency may have assisted in the formation of these cavities and pipes, yet that it is necessary to admit also mechanical action, and he refers to several instances of the known effects of rain-water on cliffs, and excavations of basins in river-beds, in proof of the probability of his opinion being correct.

Jan. 8, 1845.—The following communications were made :—

A paper by Mr. A. G. Bain "On the Geology of the South-Eastern extremity of Africa."

The principal object of this paper was to describe the district in which certain remarkable fossils had been obtained by the author and forwarded to England. The lowest stratified rock in this district is a red sandstone containing fragments of plants, which seem to resemble a common carboniferous species (*Lepidodendron Sternbergi*). Over this rock, and conformable to it, is a conglomerate of claystone porphyry containing pebbles, and to it succeeds clayslate. The next is the fossiliferous rock, and it consists of a disintegrated sandstone containing argillaceous matter in septarian nodules, the fossils being found in the nodules.

A notice, by Prof. Owen, of one of the genera of animals (*Dicynodon*) whose remains were forwarded by Mr. Bain. The most important character in this genus is the possession of two large tusks like those of the walrus, but the general structure of the bones indicates distinctly the reptilian character of the animal. The first of the species described by Prof. Owen was named *D. lacerticeps*, from its analogies with the lizards. In this species there is an exhibition of unusual strength in the bones of the face, but there is no mark of

any other teeth than the two which give the peculiar character to the animal. Prof. Owen considers that the whole of the anterior part of the jaws was sheathed with horn in the same manner as the Chelonians, and this is the more interesting from the other analogies presented with the Chelonians. It appears indeed throughout, that this singular animal united the character of the Lacertians, Chelonians and Crocodilians. The second species described was named *D. testudiniformis*, and differed from the former in its greater resemblance to the Chelonians. A third species, *D. strigiceps*, is chiefly remarkable for the singular position of the tusks, placed far back behind the orbit of the eye. The nearest analogue of this singular genus is the *Rhynchosaurus* of the new red sandstone of England. An unexpected point of structure exhibited in these animals is the existence of tusks like those of mammalia, exhibiting no mark whatever of the presence of a succession of teeth, which in all other reptiles known invariably exist. The tusks of the *Dicynodon* were probably used as weapons of offence and defence, and the habits of the animal seem to have been marine.

#### BOTANICAL SOCIETY OF LONDON.

Jan. 3, 1845.—J. E. Gray, Esq., F.R.S. &c., President, in the Chair.

Mr. S. Gibson presented a specimen of *Scirpus acicularis* (Linn.) with much longer stems than ordinary; the culms formed a dense tuft about 14 inches high.

Mr. Fitt presented specimens of an *Ænanthe* commonly considered *Æ. pimpinelloides* by the botanists of Norfolk. It is the *Æ. Lachenalii* (Gmel.) of Babington's 'Manual,' and the species confused with or mistaken for the true *pimpinelloides* by most other English botanists since the time of Hudson.

Four of the specimens were selected for the Society's herbarium, as showing variations from the normal character of the root. Some of the tubers were branched; some approximated to those of Smith's "*peucedanifolia*" in being thicker and shorter than ordinary. On one specimen the external fruits in the umbellules are very slightly contracted at their base; the ridges being confluent and forming a ring, much like the callous base of the fruit in the true *pimpinelloides*. The specimens were located from salt-ditches near Yarmouth.

The Secretary called the attention of members to a series of specimens of *Dryas octopetala* (Linn.), which had been sent to the Society some years ago by Mr. Tatham from Arncliffe Clonder, Yorkshire. The sepals or lobes of the calyx varied considerably in length and breadth; on one specimen the length was scarcely twice the breadth, while in another the length was four times the breadth. The convexity of the base of the calyx also varied much. He reminded the meeting that Mr. Babington had described a second species of *Dryas* (*D. depressa*, Bab.) found in Ireland, and distinguished from the well-known *D. octopetala* by exactly the same characters which these specimens proved to be within the range of variation of the true *D. octopetala*. He had not seen any example of the *D. de-*